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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/753,069

Applicant(s)

WEBER ET AL

Examiner

GREG POLLOCK

Art Unit

3695

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-59 and 95-97 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-59 and 95-97 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/08/2010
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to claims filed 09/07/2010 and Applicant's request for reconsideration of application 10/753069 filed 09/07/2010.

The amendment contains previously presented claims 58 and 96.

The amendment contains amended claims 56, 57, 59, 95, and 97.

Claims 1-55, 60-94, and 98-110 have been canceled.

As such, claims 56-59 and 95-97 have been examined with this office action.

Information Disclosure Statement

2. The information disclosure statement filed 10/08/2010 has been received, considered as indicated, and placed on record in the file.

37 CFR 1.132 Affidavit

The 37 CFR 1.132 Affidavit filed on 09/07/2010 has been considered but is insufficient to overcome the rejection of claim 56-59 and 95-97 based upon the prior art of record as set forth in the Final Rejection as filed 09/07/2010. The arguments presented by the applicant are predicated on exclusion of mutual funds from the boundaries of the claimed invention. However, the affidavit fails to exclude mutual funds within the definition of a "traded fund" and the cited reference "BusinessDictionary.com" does not contain a definition for "traded funds". The applicant correctly cites the definition of "secondary market" as found in "BusinessDictionary.com". However, there is no indication that the definition of

a secondary market excludes mutual funds. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716.

3. In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Abstract

4. The abstract of the disclosure is objected to because both sentences contained in the abstract are not complete sentences (or thoughts). Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If

the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Correction is required. See MPEP § 608.01(b).

Claim Objections

5. The claims are objected to because of the following minor informalities:
 - a. **Claim 95** transitional phase should be corrected to read "the method comprising:" as found in claims 56 and 57.
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claim 97** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 97 recite the preamble “A method comprising trading shares of a traded fund without revealing the traded fund assets, wherein an estimated value for the traded fund is derived on a computer system that includes one or more computers and is programmed to derive an estimated value of the traded fund comprising”. It is unclear how to interpret the preamble. There are two instances of the transitional phrase “comprising”. As such the claim limits are indefinite.

Claim Interpretation – Method Steps

8. **Claims** 56-59 and 95-97 contain limits which do not positively recite the statutory class (thing or product) to which it is tied, by identifying the apparatus that accomplishes the method steps. For example, claim 56 recites the claim limit “determining a set of risk factors from a risk factor model . . . storing the traded fund sensitivity coefficients on computer readable media . . .” which does not identify the apparatus performing the action. Where it is unclear what is performing a method step, such method step it is broadly interpreted to

encompass all means by which the claim limit can be performed (including a purely mental step performed by a human). If a claim limit is intended to be interpreted as being performed by a specific structural element, it must be made clear what underlying apparatus is used to perform each recited method step. Merely stating the underlying apparatus in the preamble is not sufficient. Further, if the method step is performed by software, it must be made clear that the software resides on a physical media and when read by a processor executes the method steps (all of which requires support in the specification). It is recommended that the claim be amended to clarify which method steps are performed by automatically by code and which required human decisions or action. **Claims 57, 58, 59, and 95-97** also contain claim limits with similar interpretations.

Claim Interpretation - Intended Use or Intended Results

9. In determining patentability of an invention over the prior art, all claim limitations have been considered and interpreted as broadly as their terms reasonably allow. See MPEP § 2111.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In *re Pruter*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). See MPEP § 2111.

All claim limitations have been considered. Additionally, all words in the claims have been considered in judging the patentability of the claims against the prior art. The following language is interpreted as not further limiting the scope of the claimed invention. See MPEP 2106 II C.

Language in a method claim that states only the intended use or intended result, but the expression does not result in a manipulative difference in the steps of the claim. Language in a system claim that states only the intended use or intended result, but does not result in a structural difference between the claimed invention and the prior art. In other words, if the prior art structure is capable of performing the intended use, then it meets the claim. For example **claims 56, 57, 59, 95, and 97** recite the claim limits "using a computer to create a proxy portfolio having substantially the same sensitivity coefficients as the traded fund;". Further, the claims recite multiple claim limits which state "'using a computer' to perform an intended use. Such claims state the intended use of the computer. However, such claims do not structurally distinguish themselves from any prior art which shows a computer capable of allowing a human to perform such action (thus indicating that a general purpose computer is needed and not a particular computer). Note that the claims do not indicate that the computer performs the actions, only that it is used to perform the actions.

Claim Interpretation - Preamble

10. According to MPEP 2111.02, if the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim); *STX LLC v. Brine*, 211 F.3d 588, 591, 54 USPQ2d 1347, 1350 (Fed. Cir. 2000). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). **Claims 57 and 95** recite a method which has the intended use "for calculating an estimated value for a traded fund without publicly disclosing the assets of the traded fund" and "for calculating an

estimated value for an exchange traded fund without publicly disclosing the assets of the exchange traded fund", respectively.

Claim Interpretation – “traded funds”

11. Regarding claims 56 -59 and 97, Examiner has assumed a "traded fund" means a fund as described by Applicants as any type of investment instrument and is guided by Applicants' specification which says (page 12)

"The invention provides systems and methods that allow trading of any fund while maintaining secrecy of the specific assets of the fund. While much of the following description is in terms of AMETFs, the funds traded using the systems and methods of the invention can include (and the term "fund" as used herein includes at least the following): any type of investment instrument including, for example, shares of mutual funds, unit investment trusts (UITs), closed-end funds, grantor trusts, hedge funds, any investment company, or any other type of collective investment. Furthermore, while the examples provided herein demonstrate intra-day trading of fund shares on a stock exchange without disclosure of fund assets, the systems and methods of the invention are equally applicable to trading of secret-asset fund shares at any time on any venue, market, or exchange, for example, after-hours trading on a U.S.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 56-59 and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dembo 5799287 (U.S. Patent No. 5799287) in view of Kiron (PGPub Document No. 20020143676) in further view of Dembo 5148365 (U.S. Patent No. 5148365) or alternatively Kiron (PGPub Document No. 20020143676) in view of Dembo 5799287 (U.S. Patent No. 5799287) in further view of Dembo 5148365 (U.S. Patent No. 5148365).

As per claim 56, All of the limits of Claim 56 are addressed in Claims 57, and is therefore rejected using the same prior art and rationale.

As per claim 57, Dembo 5799287 teaches a **method executed by a computer system to calculate an estimated value for a traded fund without publicly disclosing the assets of the traded fund** (see "traded fund" in Claim 56. Note that even though prior art has been applied, the claim limit "for calculating an estimated value for a traded fund without publicly disclosing the assets of the traded fund" is a statement of intended use and, as such, is given no patentable weight.) **where the computer system includes one or more computers programmed to calculate an estimated value of the traded fund** ([column 7 lines 7-22] [Figure 1]), **the method comprising: determining a set of risk factors from a risk factor model** (see at least column 5 lines 18-26); **receiving or calculating by a computer system a set of traded fund sensitivity coefficients** (see at least column 5 lines 7-38, column 7 lines 23-25, Figure 1, claims 1(c), 6, 7, 11-12), **wherein each traded fund sensitivity coefficient specifies the exposure of the traded fund to one of the risk factors in the set of risk factors** (see at least column 5 lines 7-38, column 7 lines 23-25, Figure 1, claims 1(c), 6, 7, 11-12);

calculating by the computer system weights of securities to create a proxy portfolio that does not reveal the assets of the traded fund and has substantially the same sensitivity coefficients as the traded fund by a computer (see at least column 2 line 44 - column 5 line 26, especially column 3 lines 37-44, Figure 1, claim 11 "a portfolio manager controlling a given portfolio (i.e. a target portfolio) has the objective of constructing a replicating portfolio that behaves identically to the target portfolio under all possible future states of the world"; "a perfect replication will produce a perfect hedge for the target portfolio"; column 4 lines 38-42, "Given a target return distribution, the objective for a portfolio manager is to structure a replicating portfolio that tracks the target return (or any other attribute, such as volatility) under all possible scenarios"); **and calculating by the computer the estimated value for the traded fund based on the value of the proxy portfolio** (see at least column 32 lines 60-63, column 3 lines 5-11, column 5 lines 29-32). Dembo 5799287 also teaches or implies that **the proxy portfolio does not reveal the assets of the traded fund and the identities of the assets of the traded fund are not disclosed to an investor and wherein the assets of the traded fund are not publicly disclosed on a daily basis.** (see at least column 32 lines 60-63, column 3 lines 5-11, column 5 lines 29-32), *wherein the proxy portfolio does not reveal the traded fund assets and the identities of the traded fund assets are not disclosed to an investor who trades shares of the traded fund* (see at least "Given a target return distribution, the objective for a portfolio manager is to structure a replicating portfolio that tracks the target return (or any other attribute, such as volatility) under all possible scenarios" where it is clear that only the target return or other attribute is known and the possible scenarios clearly include known sensitivities and unknown identities of assets to all investors and members of the public. That no knowledge of the target's holdings are ever stated or used in the reference's method makes clear that this negatively stated limitation is met). However, it is not clear the traded funds are traded on **the secondary market.**

Kiron teaches **a method for calculating an estimated value for a traded fund without publicly disclosing the assets of the traded fund** ([claims 146-149]. Note that even though prior art has been applied, the claim limit "for calculating an estimated value for a traded fund without publicly disclosing the assets of the traded fund" is a statement of intended use and, as such, is given no patentable weight.), **comprising: using a computer to calculate weights of securities to create a proxy portfolio with substantially the same performance as the traded fund** (a second type of security synthetically replicates the performance of the targeted traded fund [¶21] [¶50] [¶55, lines 1-6] [¶61-62]); **and using a computer to calculate the estimated value for the traded fund based on the value of the proxy portfolio** ([¶55-57] [claim 146-149]), *wherein the proxy portfolio does not reveal the assets of the traded fund and the identities of the assets of the traded fund are not disclosed to an investor who trades shares of the traded fund on a secondary market, and wherein the assets of*

the traded fund are not publicly disclosed on a daily basis (the price (value) of the outstanding shares of the exchange traded fund is reported in real time [¶55-57] [claim 146-149]). Kiron does not indicate that the **set of risk factors** come from a **risk factor model** or the use of **traded fund sensitivity coefficients**.

It would have been obvious to one skilled in the art at the time of the invention to have combined the teachings of Dembo 5799287 and Kiron to achieve the claimed invention. Kiron provides Dembo 5799287 with the specifics of actually trading and displaying real time values for an exchange traded fund in a secondary market (actual exchange). Dembo 5799287 provides the invention of Kiron with the use of risk factors derived from a risk factor model and the use of traded fund sensitivity coefficients. The motivation to combine the references would include the ability to trade a futures contract on both a securitized fund share and an index of securitized fund shares with linked derivative securities. In addition, the present invention solves a long existing but unsolved and unrecognized need. Many investors, both professional and non-professional own multiple mutual funds in an effort to diversify their investment portfolios. An index of open end mutual funds would allow greater diversification, lower transaction costs, expanded investment choices and the ability to measure their fund performance against a relevant benchmark index. The index could be calculated many different ways with a great deal of flexibility: equal price weighted, capitalization weighted, or geometrically weighted, depending upon the need.

Dembo 5148365 teaches **wherein the proxy portfolio does not reveal the assets of the traded fund and the identities of the assets of the traded fund are not disclosed to an investor who trades shares of the traded fund on a secondary market** ([column 3, lines 1-6 and 23-26] [column 8, lines 12-16] [claims 8 and 14] traded options [claim 10, lines 1-3]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Dembo 5148365 with that of Dembo 5799287 and Kiron to achieve the claimed invention. The motivation would have been to provide the advantage of reducing the administration time and costs of the option at each roll-over date.

As per claim 58, the rejection of claim 57 has been addressed. Dembo 5799287 does not teach **publicly disclosing the estimated value for the traded fund periodically throughout the day**.

Kiron teaches **publicly disclosing the estimated value for the traded fund periodically throughout the day** (the price (value) of the outstanding shares of the exchange traded fund is reported in real time [¶55-57] [claim 146-149]).

It would have been obvious to one skilled in the art at the time of the invention to have combined the teachings of Dembo 5799287 and Kiron to achieve the claimed invention. Kiron provides Dembo 5799287 with the specifics of actually trading and displaying real time values for an exchange traded fund in a secondary market (actual exchange). Dembo 5799287 provides the invention of Kiron with the use of risk factors derived from a risk factor model and the use of traded fund sensitivity coefficients. The motivation to combine the references would include the ability to trade a futures contract on both a securitized fund share and an index of securitized fund shares with linked derivative securities. In addition, the present invention solves a long existing but unsolved and unrecognized need. Many investors, both professional and non-professional own multiple mutual funds in an effort to diversify their investment portfolios. An index of open end mutual funds would allow greater diversification, lower transaction costs, expanded investment choices and the ability to measure their fund performance against a relevant benchmark index. The index could be calculated many different ways with a great deal of flexibility: equal price weighted, capitalization weighted, or geometrically weighted, depending upon the need.

As per claim 59, All of the limits of Claim 59 have been previously addressed in Claims 56 and 57, and is therefore rejected using the same prior art and rationale.

As per claim 97, All of the limits of Claim 95 have been previously addressed in Claims 57, and is therefore rejected using the same prior art and rationale.

14. Claims 95-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dembo 5799287 (U.S. Patent No. 5799287) in view of Kiron (PGPub Document No. 20020143676) in further view of Dembo 5148365 (U.S. Patent No. 5148365) in further view of Shearer (PGPub Document No. 20020002521) or alternatively Kiron (PGPub Document No. 20020143676) in view of Dembo 5799287 (U.S. Patent No. 5799287) in further view of Dembo 5148365 (U.S. Patent No. 5148365) in further view of Shearer (PGPub Document No. 20020002521).

As per claim 95, Dembo 5799287 does not indicate that its invention include **exchange traded fund** as an application.

Shearer teaches the application of a risk factor model ([¶4-5] [¶8] [¶32-37] [¶50-57] [¶73] [¶83] [claims 2, 5, 11-17]) with an exchange traded fund as one of the applications of its invention ([¶4])

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Shearer with that of Dembo 5799287 and Kiron in order to achieve the claimed invention. The motivation to use Shearer within the combined inventions of Dembo and Kiron would have been that it provides the use of a Quadratic programming (QP) problems for optimizing (minimizing or maximizing) a quadratic function of decision variables subject to linear equality and or inequality constraints on those decision variables. This allows for the ability of being able to solve the optimization problem using QP techniques, embodiments of the invention double the number of variables associated with previously held loaded financial products. One

All of the limits of Claim 95 have been previously addressed in Claims 57, and is therefore rejected using the same prior art and rationale.

As per claim 96, the rejection of claim 95 has been addressed. All of the limits of Claim 96 have been previously addressed in Claim 58 and 57, and is therefore rejected using the same prior art and rationale.

Response to Arguments

15. Applicant's arguments with respect to claims 56-59, and 95-97 filed 09/07/2010 have been considered but are moot in view of the new ground(s) of rejection. The rejection above serves as the examiners response to the applicant's arguments. The examiner has added an additional reference to advance prosecution. However, as noted in the 37 CFR 1.132 Affidavit, the prior art of record still reads on the claimed invention, since exclusion of mutual funds from the claimed invention has not been established either in the claimed invention or in 37 CFR 1.132 Affidavit.

16. Therefore, in view of the above reasons, Examiner maintains rejections.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Pollock whose telephone number is 571 270-1465. The examiner can normally be reached on 7:30 AM - 4 PM, Mon-Fri Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chuck Kyle can be reached on 571 272-5233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GAP

12/13/2010

/Gregory Pollock/
Examiner, Art Unit 3695

Gregory A. Pollock

/Thu Thao Havan/
Primary Examiner, Art Unit 3695